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ABSTRACT

Described is a hierarchical model delivery system for educational services to children with learning disabilities which provides three types of interrelated centers: university based centralized centers in highly populated areas offering complete services (Type I), satellite centers in communities which focus on the dissemination of new techniques and materials (Type II), and centers serving small rural school systems with minimal resources (Type III). It is proposed that Indiana develop three Type I centers, 17 Type II centers, and 34 Type III centers. Listed are activities of each type of center such as the development of identification/diagnostic screening processes (Type I). The functional resources of the Child Service Demonstration Center (the present Type I center) are described as including an instructional development laboratory, an evaluation unit, a teacher education laboratory, and a dissemination and retrieval unit. It is stressed that the proposed model accounts for demographic variables which often limit services provided to learning disabled children. Also provided are a flow chart of type I center activities, an organizational chart, and a table detailing information needs. (DB)

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Center for Innovation in Teaching the Handicapped

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A MODEL DELIVERY SYSTEM FOR CHILDREN WITH LEARNING DISABILITIES[1]

Patricia H. Gillespie & Melvyn I. Semmel

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Indiana University

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A Model Delivery System

for Children with Learning Disabilities

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Abstract

Federal and state legislation has been enacted in order to meet the needs of children with specific learning disabilities. Specific authorization to provide services and training for the learning disabled was established with the passage of Public Law 91-230. One section of that law provides for the development of model service centers for children categorized as learning disabled.

The Child Service Demonstration Center (CSDC) at the Center for Innovation in Teaching the Handicapped (CITH), Indiana University, Bloomington, is a model service and demonstration center for the state of Indiana. The long range goal of the CSDC is to develop a multi-dimensional approach that would provide (1) various alternatives to the education of learning disabled children and (2) enhance community team approaches.

In order to meet this goal, the CSDC has established three types of interrelated demonstration service centers for learning disabled children. The centers have been developed in accordance with criteria drawn from the unique geographical population density, characteristics, quality, and availability of existing resources in community settings.

A Model Delivery System for Children with Learning Disabilities

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Educators and community agencies who have engaged in the development of intervention programs for children with specific learning disabilities have come to realize that early identification and prevention are of utmost importance. Moreover, parents and other interested groups have begun to hold educators responsible for educational programming. It is no longer appropriate to wait for children to fail in academic and social areas of the school curriculum in order to identify those who are in need of help. Educators must design methods of early identification and devise programs that ameliorate difficulties early.

The recognized need for service to children with specific learning disabilities is being reflected in federal and state legislation. On April 13, 1970, the first specific authorization to provide services and training for the learning disabled was established with the passage of Public Law 91-230. One section of that law provides for the development of model service centers for those children. Such a concern is explicitly expressed in the legislation of 47 states which outlines services for children categorized as learning disabled.

Demographic variables, political and economic concerns, and interpretations of the definition of learning disabilities have resulted in

diverse interpretations of the programs for learning disabled children (Gillespie & Miller, 1974). If model demonstration centers are to be of benefit to their respective states, the specific characteristics of these states should be considered.

A Model for Child Service Demonstration Centers (CSDC)

In attempting to develop model and/or demonstration programs for children with learning disabilities, the Child Service Demonstration Center (CSDC) at Indiana University, Center for Innovation in Teaching the Handicapped (CITH), has developed a model for the state of Indiana which may be sufficiently comprehensive to meet the needs of other states. Our analysis of the "heterogeneity" of population density and resource availability among districts in the state of Indiana suggests three distinct loci for comprehensive services for children with specific learning disabilities.

First, the state consists of a relatively large number of small, rural, poor, independent school districts which have common characteristics such as sparsely distributed Specific Learning Disabled populations, little or no tradition for specialized educational services, lack of specialized trained personnel, strong subcultural mores, and a conservative outlook on educational innovation.

Second, the state consists of a relatively large number of cooperative school districts which generally include a number of smaller county programs confederated or consolidated with a medium size city school corporation. These service area loci share common characteristics and problems. They have limited financial resources, trained staff and facilities, and the pressure is to allocate resources "toward the center" of the confederation (at the expense of the smaller, more sparsely populated affiliates).

Finally, like most states, Indiana consists of a number of densely populated large urban and suburban school districts with their common problems and "ways of doing things."

The CSDC has developed and implemented a model for the development and delivery of exemplary services to Special Learning Disabled pupils which specifically focuses on the realities of this state's demography, i.e., the three types of school services organizational structures.

The plan encompasses a statewide system of services to learning disabled children through three types of interrelated and interdependent service centers. The centers are developed in accordance with criteria based on the unique geographical population density characteristics and the quality and availability of resources in each community.

If the feasibility of the system is established through its implementation in a centralized section of the state, the CSDC plans to work closely with the State Department of Public Instruction in order to establish a network of such centers within local systems throughout the state. These centers would provide a mechanism whereby the most effective procedures and techniques in identification, programming, and assessment of learning disabilities would be disseminated and diffused.

Three types of facilities have been established in one exemplary service cluster (South Central Indiana) during the initial implementation period for the purposes of demonstrating the feasibility of the plan. These structures are designated as Type I, Type II, and Type III centers.

Type I center. This center has been initially developed on the campus of Indiana University at CITH. It provides services to learning

disabled children through the local schools, a centralized training facility for inservice personnel, and the resources to react to the needs of Type II centers in sparsely populated areas of the state. Three Type I centers will eventually be developed in strategic locations in the state following demonstrations of the prototype at Indiana University.

Type II center. A Type II center was established as a satellite of the University center in a Special Education Cooperative located in a sparsely populated area of the state. It delivers most shared services to the smaller, "isolated" Type III centers in rural communities. A Type II center helps community and professional staff deliver exemplary diagnostic-prescriptive educational services to learning disabled children and their families. Type II centers serve as the pivotal agencies for the translation and dissemination of new techniques, materials, and services emanating from the Type I center. Both Type I and Type II centers service the learning disabled populations encompassed by their geographic locations and serve as the central agency for the Type III center.

Type III center. The Type III center serves the small rural school systems, which have minimal resources. They derive their major impetus for improved services from their relationship with the Type II center. The Type II centers deliver direct services, training, consultation and materials and disseminate those aspects of exemplary services to learning disabled children filtered through the Type I centers.

Hence, it can be seen that a realistic "ripple effect" results from this hierarchical model of service centers in the state. The larger, more comprehensive center (Type I) with its more numerous

resources and trained personnel naturally services learning disabled children in the more densely populated areas of the state. These resources and personnel service relatively large numbers of children and inservice staff and serve the second level in the system (Type II centers). The Type II center serves the populations in less populated areas of the state and is organizationally federated through school cooperatives. This second level (a) serves as the principal vehicle for collaboration and dissemination of the developments emanating from the Type I center, (b) provides direct services to their respective school populations, and (c) directly interacts with the outlying rural Type III service center.

The conceptualization of this hierarchical model is depicted in Figure 1.

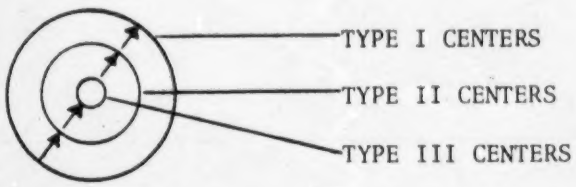

Figure 1. The interrelated function of the three types of CSDCs for providing comprehensive services in a model for the delivery of services to children with specific learning disabilities in the state of Indiana.

The goal is to demonstrate the feasibility of the model vis-a-vis the exemplary service cluster and to extend the model centers into a network of Type I, Type II, and Type III centers. The CSDC model proposes three other future Type I centers, one of which would replace the present one, seventeen Type II centers, and thirty-four Type III centers.

Activities of the Type I, Type II, and Type III Centers

The first Type I center has been established on the campus of Indiana University at the Center for Innovation in Teaching the Handicapped (CITH). It is a facility for providing comprehensive services for learning disabled children, a centralized training facility for inservice personnel, and a facility with the resources to react to the needs of Type II centers. In addition, the Type I center, through cooperation with other university components, e.g., the Speech & Hearing Clinic, has available comprehensive diagnostic services.

The Type I center engages in several developmental activities:

1. The development of identification/diagnosis screening processes.
2. The development of a system for the preparation of educational prescriptions.
3. The development of procedures for selection of optimal placements.
4. The development of procedures to evaluate placements.
5. The identification of relevant criteria and procedures related to final placement decisions.
6. The development of multimedia inservice training packages and modules.

These activities represent a logical sequence in which each activity provides an interim validation check for the activity that preceded it. In addition, parents and representatives from many disciplines have opportunities to provide input in the formative stages of the developmental activities. Final procedures are adopted only after multiple group participation is realized within the sequence outlined above.

The final sequence components have two parallel functions: the delivery of direct services to children and the delivery of training materials and workshops to relevant personnel and parents. A training component is developed for each service component. For example, the identification/diagnosis process is used to screen children for possible indications of learning disability. Workshops and materials are available for individuals who are involved, or who might be involved, in such screening activities. A reciprocal, complementary relationship exists for all direct service components and their respective training components.

The format of the training components varies with the personnel groups being served, but an interdisciplinary orientation is used as much as possible to foster a common frame of reference. This common frame of reference facilitates effective cooperation and coordination of available services. In addition, the emphasis in the training components shifts to teachers and parents as the final placement decision arrives, because such individuals assume the major responsibility for successful maintenance of the placement (see Figure 2).

Dissemination Activities of the Educational Centers

Activities of a Type I Center

The Type I center performs a variety of dissemination-related functions:

1. Assists Type II and Type III centers in adoption and implementation of relevant Type I components to meet the needs of smaller population areas;
2. Provides services and training not available at Type II and Type III centers;

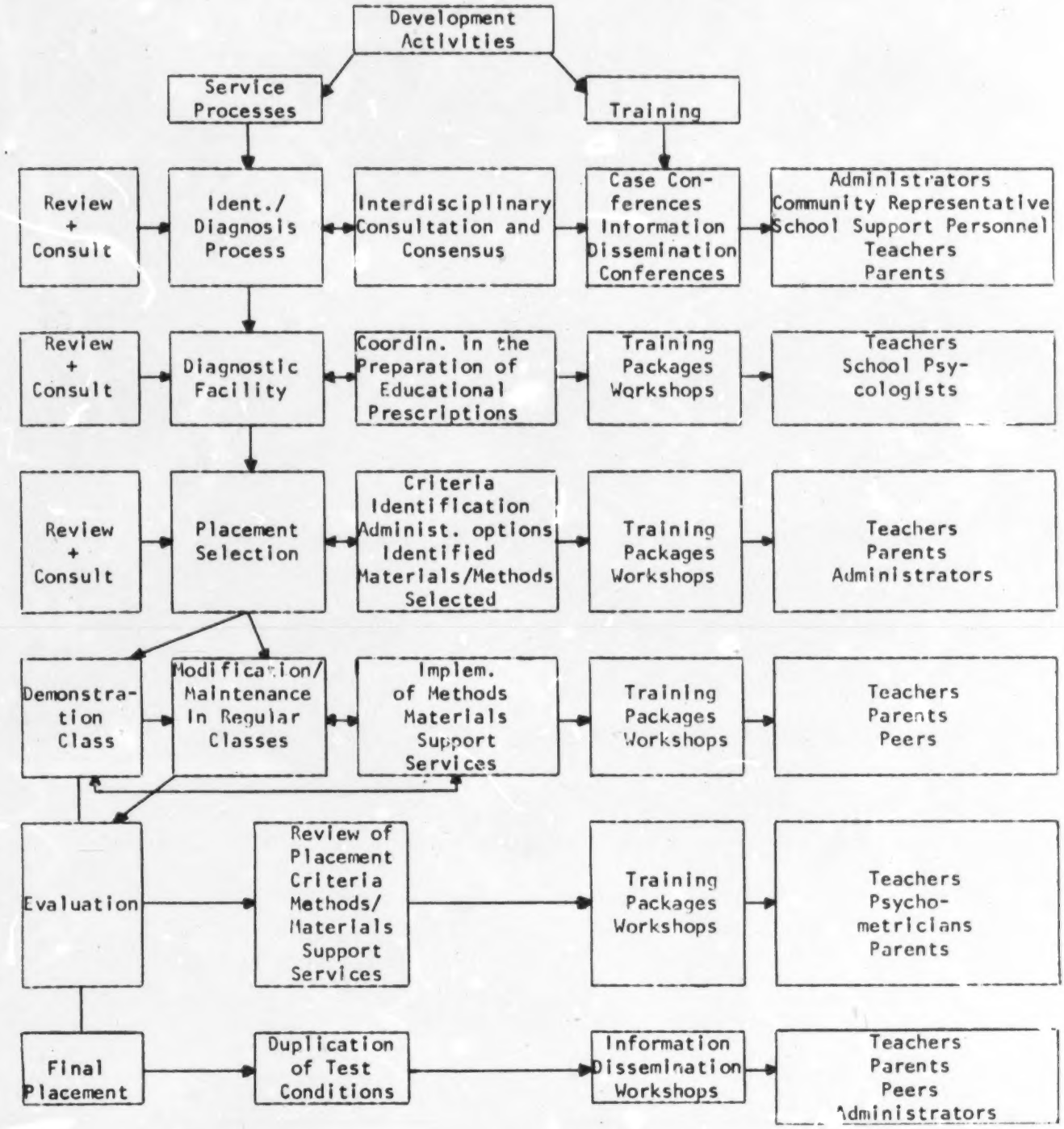

Figure 2. Flow chart for Type I center prototype operation--Phase 1.

3. Develops evaluation criteria and processes for assessing the impact of Type II and Type III centers in their respective areas;

4. Provides the state with evaluation criteria and data to facilitate the decision to extend the Type I, II, and III center network;

5. Acts as a liaison for the state in the identification of high priority needs throughout the state;

6. Cooperates with the state in implementing additional centers after the initial review and evaluating period; and

7. Develops inservice training packages.

It is assumed that a strong, collaborative relationship with the state is imperative if the center network, as conceptualized here, is to become a viable system. The resources of the state and those of the first Type I center are being combined to generate a dynamic service and training delivery system that may serve as a model for other geographic locations with similar interests and needs (see Figure 3).

Activities of a Type II Center

The Type II center engages in the same developmental activities as the Type I center; however, the scope and character of the activities is dependent on local resources. For example, the identification/diagnosis screening process is less comprehensive and requires support from the Type I center; resource and itinerant teachers have the major responsibility for preparing educational prescriptions; and the procedures for placement parallel those used in other centers since state guidelines must be followed throughout the state. Moreover, in the Type II center area, resource rooms function as demonstration centers and alternatives to traditional placement options and a particular

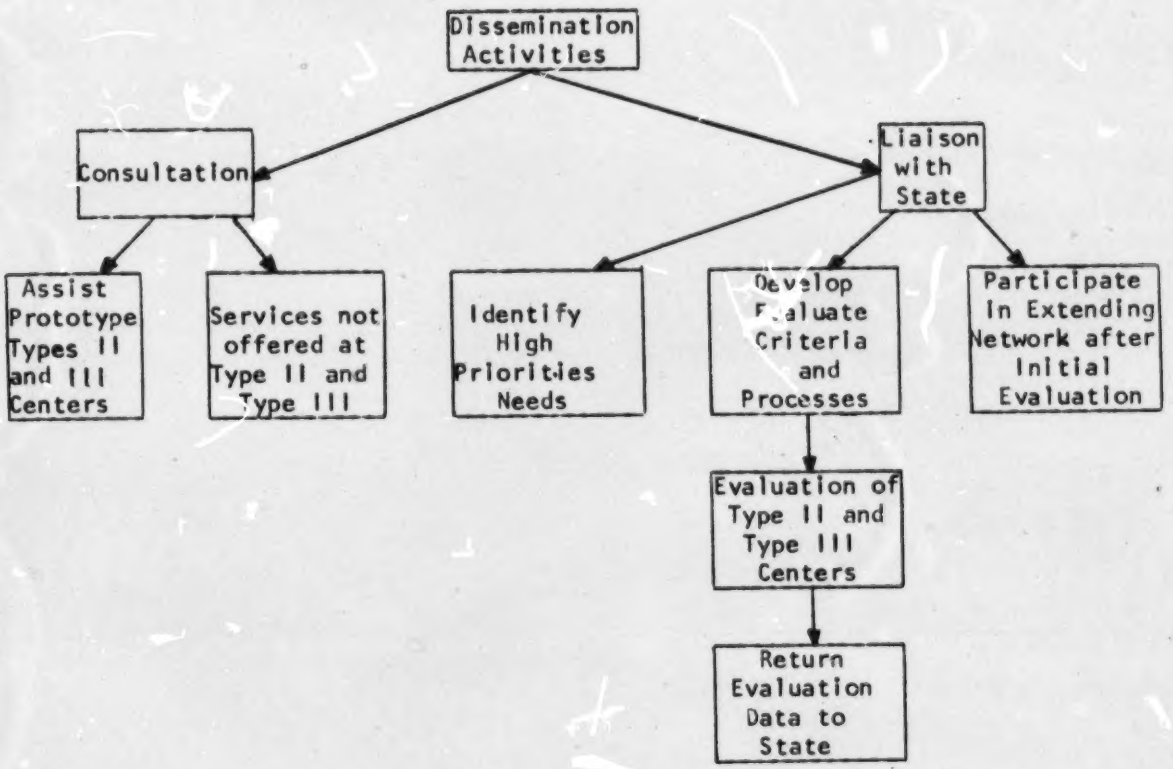
Dissemination Activities
Consultation
Liaison with State
Assist Prototype Types II and III Centers
Services not offered at Type II and Type III
Identify High Priorities Needs
Develop Evaluate Criteria and Processes
Participate In Extending Network after Initial Evaluation
Evaluation of Type II and Type III Centers
Return Evaluation Data to State

Figure 3. Flow chart for Type I center prototype operation--Phase 2.

emphasis is given to developing methods for maintaining children in the regular class. The Type I center cooperates with the Type II center in identifying relevant assessment criteria and in evaluating the effectiveness of services.

The training focuses on the needs of resource, itinerant and regular class teachers, and parents. The training requirements of personnel is met primarily by the Type I center.

The dissemination activities of the Type II center consist of providing support personnel for the Type III center and making available training materials for itinerant teachers in the area.

Activities of a Type III Center

The state requires that every district develop appropriate processes for screening, prescription preparation, and identification for optimal placements. The small number of learning disabled children in a Type III area does not justify the full-time employment of many professionals with skills in screening and prescription writing, and placement alternatives are limited. Therefore, in order to comply with the state mandate, the Type III centers are heavily dependent on Type II centers for technical assistance and, to a lesser extent, on Type I centers. Instructional programming modifications are designed, initiated, and assessed by itinerant teachers in cooperation with the regular teacher. Since the itinerant teacher is the key to the dissemination of instructional innovations to regular teachers, the itinerant teacher is the focus of local inservice training (i.e., self-instructional training packages) and has access to training experiences at the Type I and Type II centers.

In summary, during the initial implementation period the Type I, Type II, and Type III prototypes have become fully operative and self-sufficient. Each prototype model functions as a liaison with communities of comparable size and provides guidelines for service, processes, and training materials to facilitate the generation of a statewide network of Type I, II, and III centers.

A Model for Type I Centers

The success of the model presented here is greatly dependent upon the effectiveness of the Type I center in meeting the needs of the Type II and III centers, thereby meeting the needs of the state. Although a Type I center may be located within the environs of the public school, it should be engaged in more than direct service to children. As stated previously, the activities of a Type I center should encompass the development of innovative means of meeting the needs of learning disabled children in the public schools. Developing prototype materials in assessment and programming for children and in training packages for teachers requires capabilities of the Type I center. These instructional development activities typically occur within the confines of a university setting and, in most instances, lack replicability in the public schools.

Child Service Demonstration Center (CSDC) at CITH

The Child Service Demonstration Center (CSDC) at the Center for Innovation in Teaching the Handicapped (CITH) is capable of conducting the activities of a Type I center and developing means of replicability of such activities in the public schools. CITH currently serves as a support system to the CSDC. CITH has established working units in

instructional development and evaluation, a teacher education laboratory, and a dissemination-retrieval unit.

Functional Resources of the CSDC

Instructional Development Laboratory (IDL). The IDL at CITH is a fully equipped facility for the development of packages for teacher training in special education. Many of the staff members are professional instructional developers. Special Education faculty from CITH provide the content for the packages. Materials are field tested in order to determine their effectiveness. Changes in format, in approach, and in content are made based upon the evaluation in the field. The IDL has completed a number of modules that are used in inservice training of learning disabilities teachers. The specific techniques used by this group have been documented through the publication of a Sourcebook on instructional development (Thiagarajan, S., Semmel, D., & Semmel, M., 1974).

A module introducing learning disabilities is presently being developed by the CSDC faculty. This package will be used in the field for training local teachers. Those trainees who wish to acquire course credit leading to certification in learning disabilities will be able to do so.

Evaluation Unit. A team of faculty members and research associates serve as the evaluation component for CITH. They conduct evaluation for the CSDC as well. The utilization of a formal evaluation process guarantees that the effectiveness of the CSDC's activities will be carefully ascertained. The evaluation paradigm developed by this unit has been explicated by Brown & Semmel (1974) in a recently published CITH working paper.

Teacher Education Laboratory (TEL). TEL is designed as a comprehensive laboratory to service all efforts at CITH. The facility is designed primarily to incorporate the Computer-Assisted Teacher Training System (CATTS) (Semmel, 1974) research and development program which focuses on automated approaches to systematic collection, summarization, analysis, feedback, storage and retrieval of teacher-pupil interactions. This system consists of (a) experimental classrooms, (b) observation-coding stations, and (c) an analysis-encoding station including a small, all-purpose digital computer and related hardware (Semmel, 1972, 1974; Semmel, Olson, & Weiske, 1972).

In addition to providing CITH staff with advanced methodological approaches and materials for the systematic study of teacher and pupil behavior, the laboratory's mission is to continue to demonstrate unique teacher-training procedures and products which can be disseminated to other teacher education institutions and inservice teacher-training programs in the public schools through CITH's Dissemination and Retrieval Unit (DRU).

Dissemination and Retrieval Unit (DRU). The Center for Innovation in Teaching the Handicapped presently houses a Dissemination and Retrieval Unit (DRU). The design for dissemination of materials and information in the CSDC's activities follow the guidelines outlined by DRU, which are:

1. To implement the systematic dissemination of the CSDC reports and packages to the appropriate agencies and areas of the professional and lay community.
2. To establish and maintain professional standards and expedient methods of production for CITH publications and packages.

3. To provide a systematic means for processing materials necessary for ongoing research.

4. To coordinate evaluation of final versions of instructional packages.

Specifically, the CSDC is disseminating information the first year to all cooperatives involved in the project, community agencies, and the State Department of Public Instruction--Department of Special Education, Indiana.

A brochure is being developed for dissemination to all Special Education cooperatives in the state as well as all other CSDC facilities. In addition, DRU coordinates evaluation of final versions of materials and instructional packages. Evaluation of the CSDC packages and materials follows the procedures outlined in Table 1.

An organizational chart of the support systems to the CSDC and their relationship to the other centers and the state department is presented in Figure 4.

Although the CSDC is presently part of the university setting, it is our goal to work closely with the state department's special education consultants so that techniques which have proven effective for the CSDC can be replicated throughout the state. The development of training materials for the teachers in the field, more effective organizational patterns for the delivery of services to children with learning disabilities, and means of evaluation of educational personnel's activities could be coordinated through the efforts of special education personnel at the state level.

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TABLE 1

Source of Information	Type of Information	
	Problem and Needs Analysis	Impact
Literature	Quantitity, quality, content of special education and teacher training material	Quantity, quality, content of Center-related publications and number of requests for reprints
Conferences	Analysis of major topics presented and content of presentation	Number and types of presentations
Workshops	Number of requests by topics for Center workshops	Number of CSDC workshops held, by audience, and topic, and reaction to workshop
Public School Personnel	Number, type and perceived seriousness of problems	Number of personnel and districts aware of, serviced by, or involved in Center activities and analysis of beneficial effects
University Personnel	Number, type and perceived seriousness of problems	Number of personnel and universities aware of, serviced by, or involved in Center activities and analysis of beneficial effects
Center Visitors	Reasons for visiting the Center	Favorableness in reaction of Center activities
Field Testing Packages	Discussion of major problems facing group	Number of personnel involved in field test activities and degree to which effects provide solutions to their problems
Disseminating Packages	Number of requests for materials by type	Number of materials sent out by type, usefulness of materials to requestor

ORGANIZATIONAL CHART

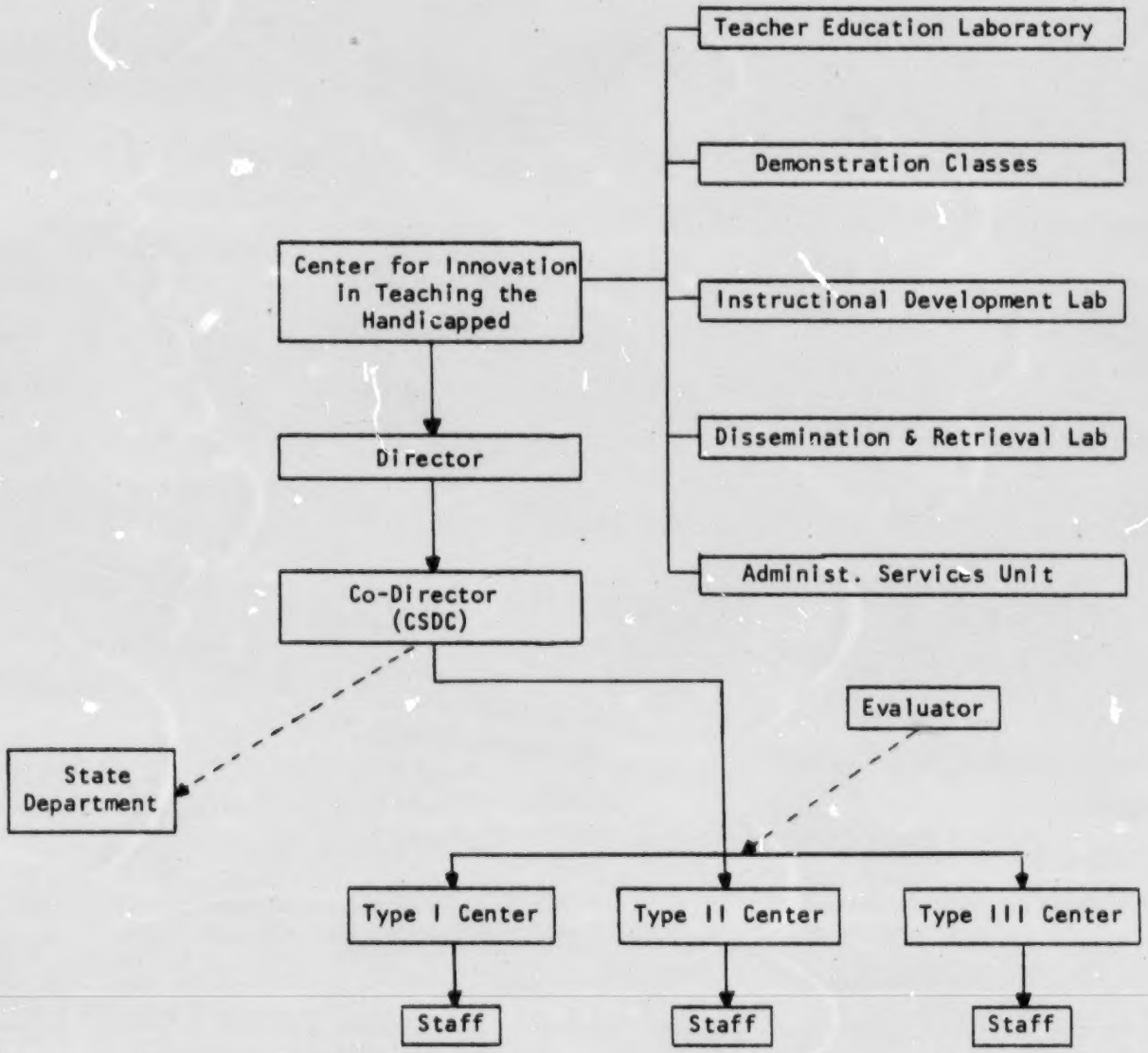

Figure 4. Organizational chart showing administrative relationships between CITH units and the State Department of Public Instruction to CSDC components.

Conclusion

If the instructional needs of children with learning disabilities are to be met on the local level, the unique features of each school system in a state must be considered. Demographic variables are ones that can often influence the types of services children receive. Establishing large diagnostic centers in densely populated areas to service children within the area as well as those in rural areas will more than likely not be successful because of the difficulty in follow-up and replicability.

If a state develops an overall system, by which proven techniques and delivery systems can be effectively disseminated, diffused, and adopted, it may be more successful in providing better educational opportunities to children with learning disabilities. An effective plan must encompass such features as a multidimensional approach that provides various alternatives to education, early identification and intervention programs, and a statewide network of services realistically developed and organized to meet the needs of rural, suburban, and urban school organizational units.

In this paper, we have focused on a model for the administrative structure of a statewide delivery service system for children with specific learning disabilities. It is apparent that while organizational variables are necessary components in the development of a successful delivery system, they are not sufficient. We must give particular emphasis on the nature and quality of the services which are delivered. Our team is cognizant of this necessity and will report our efforts in this regard in subsequent presentations.

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